Installation and Use Manual of

VEHICLE ELECTRIC AIR CONDITIONER

Before installation and use of this air conditioner, please read this manual carefully.

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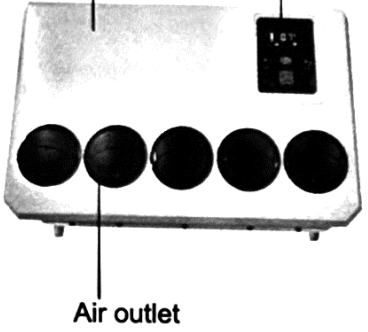
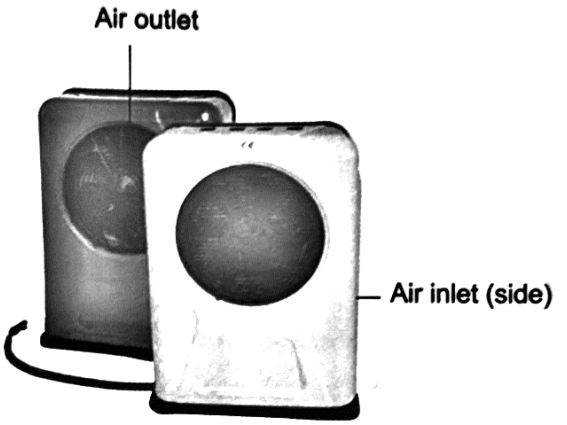
I. Main Components of the Air Conditioner

Indoor Unit:



Size:460*160*320mm

Outdoor Unit:



Size:660*490*210mm

II. Functions of Internal control panel

I.Turn on: Long press **to turn on / off .**

II.Temperature setting:

1. Click to set the temperature after start.

2. After clicking, click the (down) or (rise) again to set temperature value (12℃-32℃)

III.Speed setting:

1.click to set gear after start.

2. After clicking, click the (down) or (rise) again to adjust the setting gear (1-8 gears)

IV. Voltage setting:

After starting, click 3 times to enter the voltage setting, click the (down) or (rise) again to set the voltage (19-24V).

V .Fault clearing:

After the fault is dealt with, the fault is automatically cleared when the machine is restarted.

III. Technical Data

1. The parameters in the table are nominal values in rated condition. They may vary with the working condition. The cooling capacity, power and noise are measured before delivery.
2. Below parameters may vary due to product improvement. The parameters on the rating plate shall prevail.
3. The lowest standard indoor nominal noise level is the lowest air supply noise.

Model	Backpack Type		Box Type		Top Mounted Type	
Rated Voltage (V)	24	12	24	12	24	24
Current (A)	15-45A	60-80A	15-45A	60-80A	15-45A	60-80A
Rated Power (W)	950	960	950	960	950	960
Rated Cooling Capacity (W)	1000-3000W					
Performance Coefficient	≥2.5					
Refrigerant	HFC134a					
Refrigerant Oil	POE68					
Charging Quantity of Refrigerant (g)	600					
Range of Speed	1000-3000					
Indoor Unit Size (mm)	460*160*320		460*160*320		500*340*70	
Outdoor Unit Size (mm)	660*490*210		550*240*400		970*720*165	
Power Cord Specification (mm_2)	3.5m*8				7m*8	

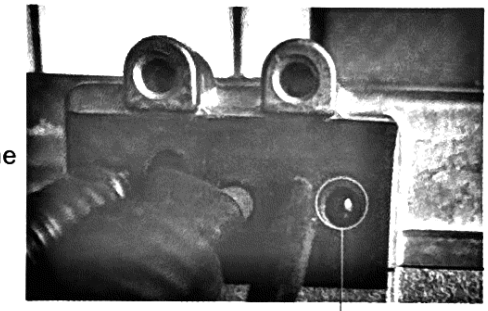
Error code flash on internal machine:

While using the air conditioner, if the following codes are displayed on the screen, they may indicate relevant faults of the machine. Please make the following operations:
Stop the air conditioner and power off. After ten minutes, power on and start it. If the code is still there, stop the machine and power it off, and then contact the repair center. (If the code disappears, you can continue to use it)
E01--Voltage is too low --- Please charge the battery
E02--Evaporation box fan is open--Please check the fan plug or replace the fan.
H22--The failure of air inlet sensor indicates that the mode can be changed after returning to normal.
H23--The failure of out inlet sensor indicates that the mode can be changed after returning to normal.
E04--pipe temperature (outlet air) sensor
E05--Compressor overheating ---- After the compressor cools down, automatically resume working.
E06--Condensing fan open circuit --- Check if the circuit from compressor to condensing fan is open circuited.

E07--Condensation fan short circuit --- Check if circuit from compressor to condensing fan is short circuited.
E09--The brushless control board of the condensing fan is faulty--please replace the control board of the condensing fan.
E10--Condensing fan failure ---- Please replace the condensing fan motor
E11--The condensing fan is out of contact ---- Please check the compressor control board and the condensing fan wiring for damage.
Note: If the number flashes of the compressor fault indicator is not shown in the table above, please replace the compressor control panel.

Compressor faults are indicated by the LED fault

The number of red indicator lights flashing at the end of the compressor:
Flash 1 time -- Standby
Flash 5 times -- Compressor case temperature is too high--
Lack of refrigerant or dirty condenser
Flash 6 times - Open circuit of cooling fan--
Bad contact of electromagnetic fan plug
Flash 7 times - Short circuit of cooling fan--
Short circuit in the motor or short circuit in the connection line
Flash 9 times - Condensing fan controller failure
Flash 10times - Condensing fan failure
Flash 11times - Condensing fan lost contact



LED fault indication

V. Faults

In any of the following situations during the use of the air conditioner, please find out a solution by following the index; if it is a fault, please contact the repair center in time.

Phenomenon	Solution
The refrigeration effect is not good	Select the right mode and set proper temperature and speed
	Check if there is any obstruction at the air inlet and outlet
	Check if the surface of the condenser is too dirty
	Check if it is short of refrigerant, and if the high and low voltage is within the normal range
There is water on the surface of indoor unit	When running in an environment with high humidity, water drops will form at the air outlet and core surface, which is a normal physical phenomenon
The indoor unit displays voltage fault	Check if it is battery low and if the power source is DC24V
	Check if the low voltage protection value is too high
The indoor unit displays sensor faul	Check if the sensor at air inlet/outlet is plugged in correctly
	Check if the display temperature is higher than normal ambient temperature. If it is, change the sensor
The indoor unit displays fan fault	Check if the fan is correctly plugged in. Connect the fan with a separate 24V DC power source. If the fan won't work, change it

The indoor unit displays outdoor unit fault	Check if it is short of refrigerant
	Check if the high and low voltage is within the normal range
	Check if the condenser is too dirty that heat dissipation is adversely affected

VI. Installation Instructions

Before the air conditioner is installed for the first time, check if the accessories are complete and correct.

1. Outdoor unit mounting: Select a position for installation and then make at least 6 holes on the driving cab. The set screws shall be Grade 12.9 M8 bolts. There shall be dedicated shock absorber pad between the outdoor unit and the driving cab.

2. Indoor unit mounting: It is recommended that the indoor unit is mounted on the right side above the co-driver. First, mount the wood board on the driving cab (self-tapping screws can be used. Screws can be also used to break through the board to fix it onto the bar of the cab. The number of screws used shall be at least four). After the board is fixed, use self-tapping screws to fasten the indoor unit with the board. There are three screw holes on each side of the unit. Just drive the screws in.

3. After the indoor and outdoor units are fixed, connect them with pipes and install expansion valve. During installation, pay attention to the cleanliness of the joining part of the valve and connection pipe. See if the sealing ring is damaged and apply a proper amount of refrigerant oil before installation.

4. Power cord connection:

1. All the connection lines of the indoor and outdoor units are equipped with dedicated plugs. Just plug them in.

2. Arrange the wiring to avoid any crossover. Use ties to fix wires.

3. During battery connection, do not reverse positive and negative electrodes (the positive electrode is red and negative electrode black). The set screws must be fastened.

4. If the power cord is not long enough, extend it with 10mm2 above power cord. The connection position shall be will wrapped for waterproofing.

(The total length of the power cord shall not be longer than 5 meters)

Note: The power cord of air conditioner must only be connected to the positive and negative terminals of battery.

5. System evacuation must be realized by vacuum pumping.

1. Connect the hose and outdoor unit (connect high and low pressure gauge and vacuum pump)

2. Connect the hose and vacuum pump connector

3. Open wide the high and low pressure valves of the pressure gauge

4. Start the vacuum pump for at least 20 minutes to make sure that the air in the system is completely out. Close the high and low pressure valves and wait for ten minutes. Check if the pressure gauge reading has no change, fill in refrigerant.

5. After the refrigerant is filled, start the air conditioner and check if the high and low pressure readings are within the normal range (high pressure: 1.2-1.4, low pressure: 0.2-0.25).

Select a mode and see if the air conditioner can work normally under all modes. After the air conditioner can run normally, turn it off and wrap the connection pipe with binder. Then apply sealant and install plates to hide the wall holes.

Attention: Refrigerant oil is filled in the air conditioner before delivery. After first installation, do not fill more oil. In case of any refrigerant leakage during the use of the air conditioner, add 80ml refrigerant oil again. The refrigerant oil used must be of high quality. (High quality refrigerant brands like Jinleng, Sanmei and Juhua are used)

VII. Maintenance

Before cleaning, make sure the air conditioner is turned off, powered off and unplugged.

1. Surface cleaning of indoor unit: Wash the cleaning cloth in clean water, dry it and wipe the surface of the unit. The cloth can be dipped in the water solution of neutral cleaner.
2. The core of evaporation tank is too dirty: Remove the indoor unit casing and blow off the dust on the surface with compressed air.
3. Outdoor unit cleaning: Remove the unit casing and clean the condenser with compressed air. Avoid any bump against the condenser.

Tips:

-- We recommend cleaning once every month. If there is much dust where the air conditioner is used, increase the cleaning frequency accordingly.

-- Please make regular cleaning to the air conditioner to make sure it can run normally.

4. Long time in idle: Unplug the air conditioner and wrap the outdoor unit to avoid any bump.
5. Use after long time in idle: Clean the unit body, condenser and evaporation unit; check if there is foreign matter at the air inlet/outlet of the indoor and outdoor unit; check if the drain pipe is clear; install batteries to the remote controller; make inspection and power it on.

Disclaimer

1. Our company provides video and manual for installation. Users must follow them strictly. If users fail to follow the installation video and manual, they shall be solely responsible for any man-made fault, damage and other accidents, and all the maintenance and material fees incurred. Our company will not bear any responsibility thereof.
2. Users must pay attention to safety issues during installation. They will be solely responsible for any personal safety issue.
3. If users make unauthorized air conditional transformation or use non-original parts, which caused damage to the air conditioner and personal injuries, users, rather than our company, shall bear all the responsibilities.
4. Users are deemed to agree this disclaimer by purchasing our product.

Manual of Split Type Vehicle Electric Air Conditioner